***CHEMISTRY SUMMATIVE REVIEW – 1st Semester***

|  |  |
| --- | --- |
| GRADUATED CYLINDER  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020usbSJNa1cAvOKJzbkF;_ylu=X3oDMTBpdnJhMHUzBHBvcwMxBHNlYwNzcgR2dGlkAw--/SIG=1ipkmdgo5/EXP=1294188332/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dgraduated%252Bcylinder%2526ei%253DUTF-8%2526fr%253Dyfp-t-701%26w=400%26h=400%26imgurl=core.ecu.edu%252Fchem%252Fchemlab%252Fequipment%252Fimages%252Fgcylinder.jpg%26rurl=http%253A%252F%252Fcore.ecu.edu%252Fchem%252Fchemlab%252Fequipment%252Fegcylinder.htm%26size=29KB%26name=Graduated%2bCylind...%26p=graduated%2bcylinder%26oid=777a4233c0069c18bdc07dc8d1b881d4%26fr2=%26no=1%26tt=8770%26sigr=11ppv9liv%26sigi=11oh9e3ka%26sigb=12nvo0lo6%26.crumb=XdN.C3D98qS) | Measures = volume  Gradually goes up.  The more lines = the more accurate (less guessing) |
| TRIPLE BEAM BALANCE  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020zYbSJNxkcAbJyJzbkF;_ylu=X3oDMTBpY2Y5NXNiBHBvcwM2BHNlYwNzcgR2dGlkAw--/SIG=1mo9kdf44/EXP=1294188376/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dtriple%252Bbeam%252Bbalance%2526ei%253Dutf-8%2526fr%253Dyfp-t-701%26w=600%26h=253%26imgurl=www.laddresearch.com%252FNew_Products%252FOhaus_Balances___Scales%252FTriple_Beam_Balances_-_Standar%252FTripleBeam.jpg%26rurl=http%253A%252F%252Fwww.laddresearch.com%252FNew_Products%252FOhaus_Balances___Scales%252FTriple_Beam_Balances_-_Standar%252Ftriple_beam_balances_-_standar.html%26size=73KB%26name=...%2bStandard%2bTri...%26p=triple%2bbeam%2bbalance%26oid=9e379cd7bd648e2b6f5e7ecdce48f422%26fr2=%26no=6%26tt=3980%26sigr=143l9ks2d%26sigi=137q4mg99%26sigb=12og3e60e%26.crumb=XdN.C3D98qS)  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020mvcyJN.WMA5fuJzbkF;_ylu=X3oDMTBqZDFlYmxzBHBvcwMxNgRzZWMDc3IEdnRpZAM-/SIG=1hj229fvu/EXP=1294189871/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dtriple%252Bbeam%252Bbalance%26w=640%26h=480%26imgurl=farm5.static.flickr.com%252F4111%252F5032217344_78a208e161_z.jpg%26rurl=http%253A%252F%252Fwww.flickr.com%252Fphotos%252F40964293%2540N07%252F5032217344%252F%26size=182KB%26name=Triple%2bBeam%2bBala...%26p=triple%2bbeam%2bbalance%26oid=6ea7f28af0dd568e466104bf52e580dc%26fr2=%26no=16%26tt=3980%26sigr=11lhri9qp%26sigi=11o4dra40%26sigb=1222jsilm%26.crumb=XdN.C3D98qS)  110 | Measures = mass  If you place beaker with 50 ml of liquid and measure the mass and it is 100 grams……the liquid is not 100 grams……the (beaker mass + mass of liquid) = 100 grams  Always subtract mass of empty beaker or mass of tray (TRICK QUESTIONS)  Add the number that the arrows point down at. |
| DISPLACEMENT | If the meniscus (curve) is on 12 and you drop in a rock and the curve is now at 32, the volume the rock displaced is (32-12) = 20 but the volume of the liquid is still the same |
| TEST TUBE  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020wEbiJNTzwAtq2JzbkF;_ylu=X3oDMTBqaHBscmZmBHBvcwMxMwRzZWMDc3IEdnRpZAM-/SIG=1hs050s9a/EXP=1294188420/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dtest%252Btube%2526ei%253Dutf-8%2526fr%253Dyfp-t-701%26w=500%26h=485%26imgurl=mac.softpedia.com%252Fscreenshots%252FTest-Tube_1.png%26rurl=http%253A%252F%252Fmac.softpedia.com%252FprogScreenshots%252FTest-Tube-Screenshot-63956.html%26size=146KB%26name=Test%2bTube%2bscreen...%26p=test%2btube%26oid=5da92ede385490a1c0bde56df25a338a%26fr2=%26no=13%26tt=96400%26sigr=128k9ul5r%26sigi=11drstpfg%26sigb=12e1cdrl3%26.crumb=XdN.C3D98qS) | Avoid pointing the mouth (opening) of the test tube at people as chemicals could erupt outward. (SAFE lab PROCEDURE)  Erupt = spew = get all over |
| BUNSEN BURNER  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020w5biJN7D0A_hmJzbkF;_ylu=X3oDMTBpc2VvdmQ2BHBvcwM3BHNlYwNzcgR2dGlkAw--/SIG=1k834i3lj/EXP=1294188473/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dbunsen%252Bburner%2526ei%253Dutf-8%2526fr%253Dyfp-t-701%26w=313%26h=383%26imgurl=dir.coolclips.com%252FScience%252FChemistry%252FBunsen_burners%252Fbunsen_burner_CoolClips_vc066247.jpg%26rurl=http%253A%252F%252Fdir.coolclips.com%252FScience%252FChemistry%252FBunsen_burners%252FBunsen_burner_vc066247.html%26size=45KB%26name=Bunsen%2bburner%2bVe...%26p=bunsen%2bburner%26oid=7e7069e602677212c8897f763516c64e%26fr2=%26no=7%26tt=8980%26sigr=12lt9ut2m%26sigi=12nna7c57%26sigb=12i0a5lj1%26.crumb=XdN.C3D98qS) | After several attempts = CLOSE GAS  Keep on trying = EXPLODE HOUSE |
| SCIENTIFIC NOTATION | 5856 = 5.856 \* 103  0.005856 = 5.856 \* 10-3  SMALL NUMBER (less than 1) = NEGATIVE |
| States of MATTER | [View Image](http://rds.yahoo.com/_ylt=A0S020xgbiJNnksAjtSjzbkF/SIG=129ivvnqc/EXP=1294188512/**http%3a/www.grc.nasa.gov/WWW/K-12/BGP/Images/state.gif) |
| CHEMICAL PROPERTY  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTbx4IgyJNYycAwpKJzbkF;_ylu=X3oDMTBpc2ozM2gzBHBvcwM0BHNlYwNzcgR2dGlkAw--/SIG=1g8l7ke7u/EXP=1294193800/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dsodium%252Bin%252Bwater%2526ei%253Dutf-8%26w=720%26h=450%26imgurl=biochemies.com%252Fgallery%252Fsodium.jpg%26rurl=http%253A%252F%252Fbiochemies.com%252F%253Fsodium%26size=35KB%26name=Sodium%2b%2528Na%2529%2bmeta...%26p=sodium%2bin%2bwater%26oid=a92ca1f877822d412cb3262fed290bdd%26fr2=%26no=4%26tt=91400%26sigr=10tc9a9p5%26sigi=111muasg4%26sigb=1272jdkvb%26.crumb=XdN.C3D98qS) | To see a CHEMICAL PROPERTY, must put it with something and watch how it interacts.  Put sodium with water, watch it blow up |
| REACTION  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_78gCJNGS8AON.JzbkF;_ylu=X3oDMTBqb3U5bmQ4BHBvcwMzOQRzZWMDc3IEdnRpZAM-/SIG=1kdm6gjc5/EXP=1294193276/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dpop%252Bquiz%2526b%253D21%2526ni%253D20%2526ei%253Dutf-8%2526xargs%253D0%2526pstart%253D1%26w=500%26h=497%26imgurl=ecx.images-amazon.com%252Fimages%252FI%252F51LUlIfX7ZL._SL500_.jpg%26rurl=http%253A%252F%252Fstore.math.com%252FBooks-1000-0615197191-I_Smell_a_Pop_Quiz_A_Big_Nate_Book.html%26size=57KB%26name=...%2bPop%2bQuiz%2521%253A%2bA...%26p=pop%2bquiz%26oid=425b5429535dd692b80bc496a38eba67%26fr2=%26no=39%26tt=78400%26b=21%26ni=20%26sigr=12ja4aggr%26sigi=11ms75v0b%26sigb=12s7j72au%26.crumb=XdN.C3D98qS) | MEANS CHANGE  What is the reaction, if a teacher gives a POP-QUIZ? |
| CHEMICAL REACTION  (you know it’s a chemical reaction when it changes to SOMETHING (totally different) | BURNING = SMELL (makes blackish stuff) -- different  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_19fyJNRnUAWBiJzbkF;_ylu=X3oDMTBpdnJhMHUzBHBvcwMxBHNlYwNzcgR2dGlkAw--/SIG=1h2d78rls/EXP=1294192893/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dburning%26w=1536%26h=2048%26imgurl=upload.wikimedia.org%252Fwikipedia%252Fcommons%252F1%252F14%252FCandle_burning.jpg%26rurl=http%253A%252F%252Fcommons.wikimedia.org%252Fwiki%252FFile%253ACandle_burning.jpg%26size=775KB%26name=File%253ACandle%2bburn...%26p=burning%26oid=7a529eb083e20a67c0ab8e70cbbd4c81%26fr2=%26no=1%26tt=276000%26sigr=11pgn1g42%26sigi=11uv7hnac%26sigb=11m2btqs7%26.crumb=XdN.C3D98qS)  RUSTING = OXIDIZING (totally different stuff)  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_0UgCJNmnoAiz6JzbkF;_ylu=X3oDMTBpZTByOGFiBHBvcwMyBHNlYwNzcgR2dGlkAw--/SIG=1h54f0eur/EXP=1294193044/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Drusting%2526js%253D1%2526ei%253Dutf-8%26w=800%26h=800%26imgurl=i.pbase.com%252Fv3%252F99%252F566699%252F2%252F50626063.RuedaCarreta.jpg%26rurl=http%253A%252F%252Fwww.pbase.com%252Fwildnature%252Fimage%252F50626063%26size=93KB%26name=...%2bPHOTOGRAPHY%2b...%26p=rusting%26oid=8b0a3d9cb6fb63ed28bf1dec095e6bc0%26fr2=%26no=2%26tt=70900%26sigr=11ennbv3j%26sigi=11kaam058%26sigb=124d8o60u%26.crumb=XdN.C3D98qS) |
| PHYSICAL PROPERTY | YOU CAN SEE and measure PHYSICAL PROPERTIES without forcing the object to change  COLOR OF OBJECT  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_1XgCJNRBcAg1WJzbkF;_ylu=X3oDMTBqZjdtb25uBHBvcwMyNgRzZWMDc3IEdnRpZAM-/SIG=1me088k0p/EXP=1294193111/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dcolor%2526js%253D1%2526b%253D21%2526ni%253D20%2526ei%253Dutf-8%2526xargs%253D0%2526pstart%253D1%26w=800%26h=600%26imgurl=i581.photobucket.com%252Falbums%252Fss253%252Fladygaga189%252Fmyspace-codes-layouts-10b.jpg%26rurl=http%253A%252F%252Fs581.photobucket.com%252Falbums%252Fss253%252Fladygaga189%252F%253Faction%253Dview%2526current%253Dmyspace-codes-layouts-10b.jpg%26size=71KB%26name=...%2blayouts-10b....%26p=color%26oid=a1dc5914c9964bf7e8c8280721480ba4%26fr2=%26no=26%26tt=11900000%26b=21%26ni=20%26sigr=13716vr4d%26sigi=12brvl1ju%26sigb=12u3tcq6i%26.crumb=XdN.C3D98qS)  LENGTH OF OBJECT  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_6_gSJNfBUA_reJzbkF;_ylu=X3oDMTBqMjRpazg1BHBvcwMxMARzZWMDc3IEdnRpZAM-/SIG=1hfpkoev0/EXP=1294193471/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Druler%2526js%253D1%2526ei%253Dutf-8%26w=884%26h=676%26imgurl=upload.wikimedia.org%252Fwikipedia%252Fcommons%252F5%252F53%252FSoft_ruler.jpg%26rurl=http%253A%252F%252Fcommons.wikimedia.org%252Fwiki%252FFile%253ASoft_ruler.jpg%26size=295KB%26name=Description%2bSoft...%26p=ruler%26oid=e38f798cecfc9d644d5af7663a554c0b%26fr2=%26no=10%26tt=188000%26sigr=11l1anggv%26sigi=11q24s36q%26sigb=122e02mnh%26.crumb=XdN.C3D98qS) |
| PHYSICAL REACTION | FREEZING (ITS STILL WATER)  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_2afyJNFHQAtzWJzbkF;_ylu=X3oDMTBqNzBoY2J0BHBvcwMxNARzZWMDc3IEdnRpZAM-/SIG=1iusvuat5/EXP=1294192922/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dfreezing%2526ei%253Dutf-8%26w=1200%26h=800%26imgurl=kevinmullaney.com%252Fwp-content%252Fuploads%252F2008%252F12%252F_freezing-rain.jpg%26rurl=http%253A%252F%252Fkevinmullaney.com%252F2008%252F12%252F26%252Fim-really-starting-to-despise-winter%252F%26size=256KB%26name=...%2bweek%2bit%2526%252339%253Bs%2bbe...%26p=freezing%26oid=e59a2cb38c7d34b31f20d396508475c3%26fr2=%26no=14%26tt=278000%26sigr=129ekm0vc%26sigi=11vec2j85%26sigb=12049hsu0%26.crumb=XdN.C3D98qS)  MELTING (ITS STILL GOLD)  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_3ufyJN1XQAmziJzbkF;_ylu=X3oDMTBqNjdxdjBnBHBvcwM1OARzZWMDc3IEdnRpZAM-/SIG=1k7j1q5u1/EXP=1294193006/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dmelting%2526b%253D41%2526ni%253D20%2526ei%253Dutf-8%2526xargs%253D0%2526pstart%253D1%26w=700%26h=567%26imgurl=www.paintinghere.com%252FUploadPic%252FSalvador%252520Dali-%252Fbig%252FMelting%252520Watch.jpg%26rurl=http%253A%252F%252Fwww.paintinghere.com%252Fpainting%252FMelting_Watch_1876.html%26size=174KB%26name=...%2bDali%2bMelting...%26p=melting%26oid=8f7b603ccabc2f41dad594aad4370e98%26fr2=%26no=58%26tt=171000%26b=41%26ni=20%26sigr=11ssrkm02%26sigi=12724325s%26sigb=12r9uj81u%26.crumb=XdN.C3D98qS) |
| Unknown POWDER  PURE SUBSTANCES (1 thing) will have the same melting point no matter how many different samples of the material you tried | TO FIGURE OUT if an unknown powder is a PURE SUBSTANCE, must see if it has a well defined melting point.  MIXTURES might vary since it has different elements mixed together. |
| DIFFERENCES PHYSICAL reaction vs. CHEMICAL | PHYSICAL CHANGE = MIGHT look a bit different but is SAME SUBSTANCE  CHEMICAL CHANGE = changes to new substance |
| DENSITY    [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020nQbiJNgWsAn5SJzbkF;_ylu=X3oDMTBqMjRpazg1BHBvcwMxMARzZWMDc3IEdnRpZAM-/SIG=1i2e9gf74/EXP=1294188624/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Ddensity%2526ei%253Dutf-8%2526fr%253Dyfp-t-701%26w=1368%26h=3434%26imgurl=upload.wikimedia.org%252Fwikipedia%252Fcommons%252F2%252F25%252FDensity_column.JPG%26rurl=http%253A%252F%252Fen.wikipedia.org%252Fwiki%252FFile%253ADensity_column.JPG%26size=1MB%26name=File%253ADensity%2bcol...%26p=density%26oid=faf43ecb666c88b656d275783c10e996%26fr2=%26no=10%26tt=303000%26sigr=11k5sgi8v%26sigi=11uqrit4q%26sigb=12cg2o8j7%26.crumb=XdN.C3D98qS) | OBJECTS WITH same volume, but MORE STUFF…are more dense  DENSER LIQUIDS SINK TO BOTTOM WATER’s DENSITY is 1.0 g/ml  If water is the middle liquid, then the bottom liquid is greater than water like (1.2 g/ml) AND the top layer (floating on water) is less dense…..like maybe (.90 g/ml) |
| ***VOLUME***  MILLILITERS  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020v7byJNcmgAlpiJzbkF;_ylu=X3oDMTBpZm5udGl1BHBvcwM1BHNlYwNzcgR2dGlkAw--/SIG=1ikvh9cd2/EXP=1294188923/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dmilliliter%2526js%253D1%2526ei%253Dutf-8%26w=640%26h=480%26imgurl=video.ecb.org%252Fbadger%252Fdownload%252Fvlc%252Fimages%252FVLC107_Milliliter.jpg%26rurl=http%253A%252F%252Fexplore.ecb.org%252Fvideos%252FVLC_media%253FP1%253DVLC107%2526REFERER%253DOTHER%26size=38KB%26name=Milliliter%2b%2528Imag...%26p=milliliter%26oid=07d3f368a5699161a0f52e2e92ed5f4b%26fr2=%26no=5%26tt=20900%26sigr=11vfpqj8s%26sigi=11uam6n8i%26sigb=1276goh4i%26.crumb=XdN.C3D98qS) [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020v7byJNcmgAkpiJzbkF;_ylu=X3oDMTBpdnJhMHUzBHBvcwMxBHNlYwNzcgR2dGlkAw--/SIG=1jbh2nfrm/EXP=1294188923/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dmilliliter%2526js%253D1%2526ei%253Dutf-8%26w=640%26h=480%26imgurl=video.ecb.org%252Fbadger%252Fdownload%252Fvlc%252Fimages%252FVLC086_Milliliter_of_water.jpg%26rurl=http%253A%252F%252Fexplore.ecb.org%252Fvideos%252FVLC_file%253FTYPE%253DImage%2526P1%253D1097%2526REFERER%253DOTHER%26size=55KB%26name=One%2bmilliliter%2bo...%26p=milliliter%26oid=aa9293b091b7adcca8b8ebc6f13cc5be%26fr2=%26no=1%26tt=20900%26sigr=127qvuojn%26sigi=127jgeiph%26sigb=1276goh4i%26.crumb=XdN.C3D98qS)  MICROLITERS = extremely (VERY) small and tiny drops think MICROSCOPE  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTefO1jCJNFwgAvVqJzbkF;_ylu=X3oDMTBpc2ozM2gzBHBvcwM0BHNlYwNzcgR2dGlkAw--/SIG=1icjnu9fl/EXP=1294196277/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dmicroscope%2526ei%253DUTF-8%2526fr%253Dyfp-t-701%2526fr2%253Dtab-web%26w=364%26h=504%26imgurl=www.biologycorner.com%252Fresources%252Fmicroscope2.gif%26rurl=http%253A%252F%252Fwww.biologycorner.com%252Fworksheets%252Fmicroscope-advanced.html%26size=47KB%26name=Microscope%2bLab%2b-...%26p=microscope%26oid=2527e07636b5f4ce9e9e573d31ab2b01%26fr2=tab-web%26no=4%26tt=104000%26sigr=120l2i0pr%26sigi=11fc0bg51%26sigb=12r65nl6h%26.crumb=XdN.C3D98qS) | LITERS  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020vRbyJNKE8ACZGJzbkF;_ylu=X3oDMTBpY2Y5NXNiBHBvcwM2BHNlYwNzcgR2dGlkAw--/SIG=1i1a22im6/EXP=1294188881/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dliter%252Bof%252Borange%252Bjuice%2526js%253D1%2526ei%253Dutf-8%26w=531%26h=531%26imgurl=www.jaffo.ie%252Fstore%252Fimages%252Fproduct_shots%252Flarge%252Fitem_id14.jpg%26rurl=http%253A%252F%252Fwww.jaffo.ie%252Fstore%252F%26size=29KB%26name=Jaffo%2bLitre%2bOran...%26p=liter%2bof%2borange%2bjuice%26oid=a2f3eaf0df83ffa7b2d3a6cfe2d908b2%26fr2=%26no=6%26tt=4640%26sigr=10q31igth%26sigi=11rimf3f4%26sigb=12isi6g8t%26.crumb=XdN.C3D98qS)[Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020uabyJNcWgAmVqJzbkF;_ylu=X3oDMTBpZTByOGFiBHBvcwMyBHNlYwNzcgR2dGlkAw--/SIG=1i12qcdgt/EXP=1294188826/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dliter%26w=500%26h=733%26imgurl=www.newinfo2day.com%252Fwp-content%252Fuploads%252F2009%252F03%252Fnormal-2-liter-bottle-of-cocacola.jpg%26rurl=http%253A%252F%252Fwww.newinfo2day.com%252Fnature%252Fsaliva-its-a-lot-more-usefull-than-you-think%252F%26size=51KB%26name=normal-2-liter-b...%26p=liter%26oid=480f6569aa4c8cce511456db8c8ad2bc%26fr2=%26no=2%26tt=425000%26sigr=12fp42isv%26sigi=12khc39cg%26sigb=11ka4r78t%26.crumb=XdN.C3D98qS)  DECILITERS (WHEN 10 friends share this liter)  (DIVIDE INTO 10 …so each get 1/10)  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020uabyJNcWgAmVqJzbkF;_ylu=X3oDMTBpZTByOGFiBHBvcwMyBHNlYwNzcgR2dGlkAw--/SIG=1i12qcdgt/EXP=1294188826/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dliter%26w=500%26h=733%26imgurl=www.newinfo2day.com%252Fwp-content%252Fuploads%252F2009%252F03%252Fnormal-2-liter-bottle-of-cocacola.jpg%26rurl=http%253A%252F%252Fwww.newinfo2day.com%252Fnature%252Fsaliva-its-a-lot-more-usefull-than-you-think%252F%26size=51KB%26name=normal-2-liter-b...%26p=liter%26oid=480f6569aa4c8cce511456db8c8ad2bc%26fr2=%26no=2%26tt=425000%26sigr=12fp42isv%26sigi=12khc39cg%26sigb=11ka4r78t%26.crumb=XdN.C3D98qS) |
| METALS  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTefd2eyJNbl8AZEWJzbkF;_ylu=X3oDMTBqamdoM3Q5BHBvcwMxMgRzZWMDc3IEdnRpZAM-/SIG=1h4v2t2g5/EXP=1294191862/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dmetals%2526ei%253Dutf-8%2526fr%253Dslv8-hpd05%26w=800%26h=533%26imgurl=www.alwin.ltd.uk%252Fwp-content%252Fuploads%252Fmetals.jpg%26rurl=http%253A%252F%252Fwww.alwin.ltd.uk%252Ffeatured%252Frecycling-for-business%26size=270KB%26name=Metals%2bReprocess...%26p=metals%26oid=1c0964220190251b8950802c9990f1c0%26fr2=%26no=12%26tt=212000%26sigr=11ngcgspp%26sigi=11et5cpb5%26sigb=12c8krbp8%26.crumb=XdN.C3D98qS) | Metals are on left side of staircase  Metals = high melting point (takes a lot of heat to melt) blowtorch  Metals = conductive (electricity will pass through) – get shocked/electrocuted |
| BALANCED REACTIONS | # of atoms = # of atoms  Na + Cl 🡪 NaCl |
| DIRECTLY PROPORTIONAL |  |
| SIGNIFICANT DIGIT RULES | ALL regular numbers count (automatically)    YUM (COUNT zeros in middle of 2 #’s) 606  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_rdhCJNSUwA0weJzbkF;_ylu=X3oDMTBpY2Y5NXNiBHBvcwM2BHNlYwNzcgR2dGlkAw--/SIG=1hf8t0epg/EXP=1294194269/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dsandwich%2526ei%253Dutf-8%26w=512%26h=384%26imgurl=www.kellyskindergarten.com%252FGames%252FGamestoMake%252Fimages%252Fsandwich.JPG%26rurl=http%253A%252F%252Fwww.kellyskindergarten.com%252FGames%252FGamestoMake%252Fgames_to_make.htm%26size=33KB%26name=sandwich.JPG%26p=sandwich%26oid=352e1b2d25a3779c9f52776f1626ae9a%26fr2=%26no=6%26tt=231000%26sigr=1255qk0jj%26sigi=120vk3736%26sigb=120aijarb%26.crumb=XdN.C3D98qS)  SIGNIFICANT FIGURES (continued)  Count zeros at end if there is a (DECIMAL IN NUMBER) .    Don’t count LEADING ZEROS |
| PRECISE in measurements  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_kDhiJNw1gABDKJzbkF;_ylu=X3oDMTBqamdoM3Q5BHBvcwMxMgRzZWMDc3IEdnRpZAM-/SIG=1j22al4cn/EXP=1294194563/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dcareful%252Bmeasure%2526js%253D1%2526ei%253Dutf-8%26w=550%26h=733%26imgurl=www.grit.com%252FuploadedImages%252FGRT%252Fblogs%252FFixin_Fence%252FChickenHouse2-3.jpg%26rurl=https%253A%252F%252Fwww.grit.com%252Fblogs%252Fblog.aspx%253Fblogid%253D184%2526tag%253Dfarms%26size=50KB%26name=Careful%2bMeasurin...%26p=careful%2bmeasure%26oid=179cc410d1fe8edc16dcab7bc7fc613d%26fr2=%26no=12%26tt=42800%26sigr=11pn3d9f5%26sigi=125pgklte%26sigb=12chl2n5i%26.crumb=XdN.C3D98qS) | PRECISE = measure carefully  WHEN you measure carefully = All numbers are close together  5.2 5.3 5.4  The thing measured might be 2 grams but YOU are still precise in measurements |
| ACCURACY  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTefgdniJNdXIAAt2JzbkF;_ylu=X3oDMTBqNzBoY2J0BHBvcwMxNARzZWMDc3IEdnRpZAM-/SIG=1j7r97i5n/EXP=1294200733/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Ddart%252Bboard%2526ei%253DUTF-8%2526fr%253Dyfp-t-701%26w=512%26h=512%26imgurl=www.wpclipart.com%252Fsigns_symbol%252Ftargets%252Fdartboard_500.png%26rurl=http%253A%252F%252Fwww.wpclipart.com%252Fsigns_symbol%252Ftargets%252Fdartboard_500.png.html%26size=158KB%26name=DARTBOARD%2b500%2b-%2b...%26p=dart%2bboard%26oid=44429cf0407f8444fdeb84b44fa8359f%26fr2=%26spell_query=dartboard%26no=14%26tt=49500%26sigr=1248a10cf%26sigi=11oe1u871%26sigb=12fiiep8m%26.crumb=XdN.C3D98qS) | When you measure a 2 gram object and find its mass to be 2.1 (YOU ARE ACCURATE)  You can be precise but not accurate |
| LEWIS DOT DIAGRAM  (ELECTRONS ON LAST RING) = valence electrons (OUTER LEVEL ELECTRONS)  Can tell how many valence electrons by group # (take second number if there are 2 digits….1st number otherwise) | lewis_dot_table_big |
| NON-METALS | ---GASES  ---BRITTLE (breaks easy) |
| ATTRACT  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTefP8eSJNZ2sAwCmJzbkF;_ylu=X3oDMTBpZm5udGl1BHBvcwM1BHNlYwNzcgR2dGlkAw--/SIG=1igvp04ot/EXP=1294191484/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dcandy%2526js%253D1%2526ei%253Dutf-8%2526fr%253Dslv8-hpd05%26w=1650%26h=1275%26imgurl=bamfbackgrounds.com%252Fupload%252F1avyndy4-Candy-Collage.JPG%26rurl=http%253A%252F%252Fbamfbackgrounds.com%252FshowBackgrounds.php%253Finterest%253DCandy%2526page%253D2%26size=319KB%26name=...%2b13%2bCandy%2bMys...%26p=candy%26oid=c2a89db5c8453c484060f6d235997a07%26fr2=%26no=5%26tt=672000%26sigr=124d3fdh9%26sigi=11llksp0o%26sigb=12gd08q98%26.crumb=XdN.C3D98qS) | CANDY ATTRACTS Kids (pulls kids toward it) |
| REPEL  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTefM4eiJNrXwAP5mJzbkF;_ylu=X3oDMTBpaWhqZmNtBHBvcwMzBHNlYwNzcgR2dGlkAw--/SIG=1h1jieitl/EXP=1294191544/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dtoilet%2526ei%253Dutf-8%2526fr%253Dslv8-hpd05%26w=366%26h=581%26imgurl=www.tempe.gov%252Fconservation%252Fimages%252Ftoilet1.jpg%26rurl=http%253A%252F%252Fwww.tempe.gov%252Fconservation%252Ftoilet_rebate.htm%26size=33KB%26name=City%2bof%2bTempe%2bTo...%26p=toilet%26oid=92dedb2ddefff19158bf08714eeb7fec%26fr2=%26no=3%26tt=216000%26sigr=11jav1jr9%26sigi=11dk1pkcj%26sigb=12chjjbkv%26.crumb=XdN.C3D98qS) | BAD SMELLS REPEL YOU  STINKY = YUCK (you move away)  Like charges repel…..(Negative repels negative)  (Positive repels positive) |
| ALPHA Particle (stopped by piece of paper)  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTefNzeiJNq34AoVWJzbkF;_ylu=X3oDMTBqdGFzdWxiBHBvcwMxNQRzZWMDc3IEdnRpZAM-/SIG=1hc9ki855/EXP=1294191603/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dalpha%252Bparticle%2526ei%253Dutf-8%2526fr%253Dslv8-hpd05%26w=208%26h=214%26imgurl=education.jlab.org%252Fglossary%252Falphaparticle.gif%26rurl=http%253A%252F%252Feducation.jlab.org%252Fglossary%252Falphaparticle.html%26size=14KB%26name=Alpha%2bParticle%26p=alpha%2bparticle%26oid=9b2ebdfe3b848f00cceef9551afc5115%26fr2=%26no=15%26tt=11600%26sigr=11lroft7m%26sigi=11duoddbv%26sigb=12knduqcu%26.crumb=XdN.C3D98qS) | POISITIVELY CHARGES (so bends toward/ attracts negative)  THINK an A on a test (very good…positive)  Being ALPHA DOG = very positive thing    (BIGGEST # is always mass number) …all mass is in middle so mass is 4…..(2 protons + 2 neutrons) |
| BETA Particle (stopped by aluminum plate) | NEGATIVELY CHARGED PARTICLE (so bends toward/ attracts positive)  B’s aren’t as good as A’s (so more negative) |
| GAMMA Particle (stopped by block of lead) | NEUTRAL (no charge) – will not bend towards charge |
| ALPHA…BETA…GAMMA | BETA bends toward A (opposites attract…come together)  ALPHA bends toward C (opposites attract)  Gamma = goes straight since It has no charges (neither repel no attract) |
| MENDELEEV  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_qAhiJNMUMAs4iJzbkF;_ylu=X3oDMTBpdnJhMHUzBHBvcwMxBHNlYwNzcgR2dGlkAw--/SIG=1hhludto0/EXP=1294194688/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dmendeleev%2526ei%253Dutf-8%26w=275%26h=384%26imgurl=reich-chemistry.wikispaces.com%252Ffile%252Fview%252Fmendeleev.jpg%252F146783513%252Fmendeleev.jpg%26rurl=http%253A%252F%252Freich-chemistry.wikispaces.com%252F1800AD-1875AD%26size=104KB%26name=DImitri%2bMendelee...%26p=mendeleev%26oid=ddca96e23d42964eaebe386af238c126%26fr2=%26no=1%26tt=9200%26sigr=11jm8gd7t%26sigi=12eogdpfc%26sigb=121tr450r%26.crumb=XdN.C3D98qS) | ORDERED (placed) elements by mass #  DIDNt all work ---some elements were exceptions (weren’t in right spot) by mass # |
| MOSELEY  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_rPhiJN5z0AXnGJzbkF;_ylu=X3oDMTBqaWRlZWhnBHBvcwMxOQRzZWMDc3IEdnRpZAM-/SIG=1k1cffqds/EXP=1294194767/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253DMOSELEY%252Bperiodic%252Btable%2526norw%253D1%2526ei%253DUTF-8%2526fr2%253Dsp-qrw-corr-top%26w=255%26h=359%26imgurl=www.siprep.org%252Ffaculty%252Fmstecher%252Fimages%252Fmoseley.gif%26rurl=http%253A%252F%252Fwww.siprep.org%252Ffaculty%252Fmstecher%252Fperiodictable.htm%26size=34KB%26name=PERIODIC%2bTABLE%26p=MOSELEY%2bperiodic%2btable%26oid=2494472100e7595c81b01cbc178bdf96%26fr2=sp-qrw-corr-top%26norw=1%26no=19%26tt=162%26sigr=11o3vqju1%26sigi=11ib0kag3%26sigb=139ql5560%26.crumb=XdN.C3D98qS) | ORDERED (placed) elements by atomic #  YOUNG GUY = FIXED what older guy (Mendeleev) was trying to do |
| CONTRADICT  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTbx4qfSJN0yMAf3.JzbkF;_ylu=X3oDMTBqMjZqMWxsBHBvcwMyMwRzZWMDc3IEdnRpZAM-/SIG=1kiht922r/EXP=1294192298/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dwork%252Bhard%2526b%253D21%2526ni%253D20%2526xargs%253D0%2526pstart%253D1%26w=640%26h=480%26imgurl=www.telecom.ntua.gr%252F%257Ebpatr%252Fuploads%252Fphotos%252F101.jpg%26rurl=http%253A%252F%252Fwww.telecom.ntua.gr%252F%257Ebpatr%252Fmodules%252Fmyalbum%252Fphoto.php%253Flid%253D101%2526cid%253D16%26size=50KB%26name=hard%2bwork%2bat%2bNTU...%26p=work%2bhard%26oid=46e2e7a03c8215679f0e57b43cb20e3c%26fr2=%26no=23%26tt=1380000%26b=21%26ni=20%26sigr=12a3q0uvt%26sigi=11h1e8d31%26sigb=12kkjfoqr%26.crumb=XdN.C3D98qS) | When SAY you want to pass BUT CHILL (like these guys), you are contradicting yourself |
| HALF-LIFE  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTefjfkyJN4GoAoiaJzbkF;_ylu=X3oDMTBqMGphbm9uBHBvcwMyMARzZWMDc3IEdnRpZAM-/SIG=1kta27vsr/EXP=1294198111/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dhour%252Bglass%2526b%253D1%2526ni%253D20%2526ei%253Dutf-8%2526xargs%253D0%2526pstart%253D1%2526fr%253Dyfp-t-701%26w=595%26h=575%26imgurl=ny-image3.etsy.com%252Fil_fullxfull.89112643.jpg%26rurl=http%253A%252F%252Fwww.etsy.com%252Flisting%252F30529425%252Fvintage-hourglass-3-minute-timer-wood%26size=59KB%26name=Vintage%2bHourglas...%26p=hour%2bglass%26oid=eda59a7490d6fcc3bbdf66792b18734d%26fr2=%26spell_query=hourglass%26no=20%26tt=80000%26b=1%26ni=20%26sigr=12av4urep%26sigi=11ct07era%26sigb=13anapkpu%26.crumb=XdN.C3D98qS) [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTefgRlCJNFHQAIamJzbkF;_ylu=X3oDMTBqaTFoaGxvBHBvcwMxNwRzZWMDc3IEdnRpZAM-/SIG=1it7ccc9r/EXP=1294198161/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dwatch%2526ei%253Dutf-8%2526fr%253Dyfp-t-701%26w=585%26h=600%26imgurl=i165.photobucket.com%252Falbums%252Fu49%252Fcarx001%252Fjbch3558_02.jpg%26rurl=http%253A%252F%252Fmydreamwatches.blogspot.com%252F2007%252F04%252Fcharles-hubert-mens-pocket-watch.html%26size=39KB%26name=Hubert%2bMen%2526%252339%253Bs%2bPoc...%26p=watch%26oid=a9880ec8d56ea1a868805ca5c1133f0b%26fr2=%26no=17%26tt=7750000%26sigr=12gs4hpim%26sigi=11ng60bha%26sigb=12a53b4dq%26.crumb=XdN.C3D98qS) | The time it takes something to decay enough so that it gets cuts in half  If the half-life of an uranium sample was 50 years, then if you started with 25 grams of it…….in 50 years, you would have 12.5 grams left |
| MASS #  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_yyhyJNV3UA.2WJzbkF;_ylu=X3oDMTBpZTByOGFiBHBvcwMyBHNlYwNzcgR2dGlkAw--/SIG=1ffb6qlns/EXP=1294194994/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Datom%2526ei%253Dutf-8%26w=443%26h=444%26imgurl=www.vtaide.com%252Fpng%252Fimages%252Fatom.jpg%26rurl=http%253A%252F%252Fwww.vtaide.com%252Fpng%252Fatom.htm%26size=95KB%26name=...%2bmade%2bup%2bof%2ba...%26p=atom%26oid=3afab523c707b7dbb06f17c8152c994d%26fr2=%26no=2%26tt=21800000%26sigr=112pp57kg%26sigi=112oak3r0%26sigb=11shc2jpn%26.crumb=XdN.C3D98qS) | MOSS OF MASS = MIDDLE  So mass # = Middle stuff added together  ELECTRONS SO SMALL, they are not counted in mass # |
| 12 neutrons  12 electrons  11 protons | ATOMIC # = 11  MASS # = (MIDDLE STUFF ADDED TOGETHER)  (11 + 12) (protons + neutrons)  I AM WHAT ELEMENT = SODIUM  (the protons tell you which atomic #) |
| URRANIUM -223 | HOW MANY PROTONS?  TRICK QUESTION……proton number never changes, look on Periodic TABLE  ATOMIC NUMBER of URANIUM = Proton # |
| ENERGY LEVELS | 2 on FIRST level (1st) 8 on second level (2nd) 18 on third level (3rd) |
| COMPOUND  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020k5cSJNHWcAHwKJzbkF;_ylu=X3oDMTBpZTByOGFiBHBvcwMyBHNlYwNzcgR2dGlkAw--/SIG=1keqj7bqs/EXP=1294189241/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dsalt%2526js%253D1%2526ei%253Dutf-8%26w=460%26h=288%26imgurl=i.telegraph.co.uk%252Ftelegraph%252Fmultimedia%252Farchive%252F01364%252Fsalt_1364790c.jpg%26rurl=http%253A%252F%252Fwww.telegraph.co.uk%252Ffoodanddrink%252Ffoodanddrinknews%252F4974994%252FSalt-may-be-drug-like-mood-enhancer-says-study.html%26size=46KB%26name=Salt%2b%2526%252339%253Bmay%2bbe%2bdru...%26p=salt%26oid=06888f017c1560fe5f5fef78ef9bca63%26fr2=%26no=2%26tt=896000%26sigr=13k5gvaoh%26sigi=126m0jmi0%26sigb=1215p1c5e%26.crumb=XdN.C3D98qS) | 2 or more elements chemically combined together in a FIXED DEFINITE amount (proportionate amount)  Like Salt (NaCl) |
| MIXTURE  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0S020licSJN9XAAOnmJzbkF;_ylu=X3oDMTBpZm5udGl1BHBvcwM1BHNlYwNzcgR2dGlkAw--/SIG=1g2baudte/EXP=1294189282/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dsalad%2526ei%253Dutf-8%26w=600%26h=321%26imgurl=www.wpclipart.com%252Ffood%252Fsalad%252Fside_salad.png%26rurl=http%253A%252F%252Fwww.wpclipart.com%252Ffood%252Fsalad%252Fside_salad.png.html%26size=98KB%26name=side%2bsalad%26p=salad%26oid=bd1dc02cf22c164d459d2380cf323d00%26fr2=%26no=5%26tt=198000%26sigr=11niuj1ah%26sigi=11buf510e%26sigb=11t0e4s9p%26.crumb=XdN.C3D98qS) | 2 or more elements NOT CHEMICALLY COMBINED (just mixed together)  EXAMPLE: A SALAD or Alloy |
| ALLOY  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTefN9eCJNQn4AR_GJzbkF;_ylu=X3oDMTBqZDFlYmxzBHBvcwMxNgRzZWMDc3IEdnRpZAM-/SIG=1humcarja/EXP=1294191101/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dalloy%2526ei%253DUTF-8%2526fr%253Dslv8-hpd05%2526fr2%253Dtab-web%26w=768%26h=768%26imgurl=liquidalloywheels.com%252Fpictures%252FTD008-A.JPG%26rurl=http%253A%252F%252Fliquidalloywheels.com%252Fpages.php%253Fp%253Dwheel%2526s%253D8%26size=144KB%26name=Liquid%2bAlloy%2bWhe...%26p=alloy%26oid=751230fc6446716f21e882bb8f0514b9%26fr2=tab-web%26no=16%26tt=408000%26sigr=11igosa4p%26sigi=11a2ho9m9%26sigb=12npheh7e%26.crumb=XdN.C3D98qS) | NOT BONDED CHEMICALLY TOGETHER (just a mixture of metals) |
| GROUPS | ELEMENTS ARE PUT IN BASED on # of VALENCE ELECTRONS  Group 18 = 8 valence  Group 16 = 6 valence electrons  Group 1 = 1 valence |
| HALOGENS (are diatomic) | [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_p6dyJNOCAAquOJzbkF;_ylu=X3oDMTBqYWdlNjBlBHBvcwMxOARzZWMDc3IEdnRpZAM-/SIG=1gn2odn8o/EXP=1294190842/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dhalogens%2526ei%253Dutf-8%26w=240%26h=180%26imgurl=www.chem4kids.com%252Ffiles%252Fart%252Felem_halogen1.gif%26rurl=http%253A%252F%252Fwww.chem4kids.com%252Ffiles%252Felem_halogen.html%26size=2KB%26name=...%2b%2526amp%253B%2bPeriodic%2bT...%26p=halogens%26oid=e090166504a0ef4c2a98b614c8e1f5fd%26fr2=%26no=18%26tt=22600%26sigr=11g5t1gaf%26sigi=11d2nklvo%26sigb=120lssggp%26.crumb=XdN.C3D98qS) |
| CARBON - 12 | WHEN you get something like (CARBON-12) the 12 represents the MASS  (The biggest # is always the mass) |
| CARBON - 14 | WHEN you get something like (CARBON-14) the 14 represents the mass  (The biggest # is always the mass) |
| ISOTOPE  Carbon-12  Carbon -14 | Same element but different mass #  Mass is different because the number of neutrons are different  Since the mass # is all the stuff in middle (nucleus) added together, you can subtract (mass # - proton #) to get neutrons |
| DIATOMIC MOLECULES  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_nkdiJNSlcARbCJzbkF;_ylu=X3oDMTBqbWlpczNlBHBvcwM1MgRzZWMDc3IEdnRpZAM-/SIG=1i7262hfr/EXP=1294190692/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Ddiatomic%2526b%253D41%2526ni%253D20%2526xargs%253D0%2526pstart%253D1%26w=500%26h=474%26imgurl=wtt-lite.nist.gov%252Fimages%252F7727379.gif%26rurl=http%253A%252F%252Fwtt-lite.nist.gov%252Fcgi-bin%252Fopenindex.cgi%253Fcid%253D7727379%26size=3KB%26name=...%2bdiatomic%2bMol...%26p=diatomic%26oid=230f27d4da22b9b095305d4745311fad%26fr2=%26no=52%26tt=4970%26b=41%26ni=20%26sigr=11qfodake%26sigi=1147o869h%26sigb=12j1snmr8%26.crumb=XdN.C3D98qS) | PREFIX DI = 2  Molecules that are diatomic, always travel with a friend (come in pairs) when they aren’t in a compound  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTb_p6dyJNOCAAquOJzbkF;_ylu=X3oDMTBqYWdlNjBlBHBvcwMxOARzZWMDc3IEdnRpZAM-/SIG=1gn2odn8o/EXP=1294190842/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dhalogens%2526ei%253Dutf-8%26w=240%26h=180%26imgurl=www.chem4kids.com%252Ffiles%252Fart%252Felem_halogen1.gif%26rurl=http%253A%252F%252Fwww.chem4kids.com%252Ffiles%252Felem_halogen.html%26size=2KB%26name=...%2b%2526amp%253B%2bPeriodic%2bT...%26p=halogens%26oid=e090166504a0ef4c2a98b614c8e1f5fd%26fr2=%26no=18%26tt=22600%26sigr=11g5t1gaf%26sigi=11d2nklvo%26sigb=120lssggp%26.crumb=XdN.C3D98qS)  Halogens are diatomic |
| SHARE ELECTRONS  [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTefNDeSJN924AhryJzbkF;_ylu=X3oDMTBqdGFzdWxiBHBvcwMxNQRzZWMDc3IEdnRpZAM-/SIG=1h7dksv5b/EXP=1294191299/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dkids%252Bsharing%252Btoys%2526ei%253Dutf-8%2526fr%253Dslv8-hpd05%26w=600%26h=529%26imgurl=bigapplemom.com%252Fwp-content%252Fuploads%252F2009%252F11%252Fsharing.gif%26rurl=http%253A%252F%252Fwww.bigapplemom.com%252F%26size=11KB%26name=sharing%26p=kids%2bsharing%2btoys%26oid=88e47d029019895695d90ea61a551a09%26fr2=%26no=15%26tt=164000%26sigr=10rke8i6n%26sigi=11ma53149%26sigb=12nrlkag1%26.crumb=XdN.C3D98qS) | CO = share  Just like the kids share……the covalent compounds share  COVALENT COMPOUNDS = SHARE (electrons)  POLYATOMIC ions = COVALENT bonded with A CHARGE |
| IONIC | IONIC = TRANSFER ELECTRONS  IONIC sounds mean. Mean people do not share |
| TENDENCY to gain ELECTRONS | The more valence electrons an ion has, the HIGHER the tendency (ABILITY) to gain electrons (STRONG RULE)  MORE VALENCE ELECTRONS = MORE STRONG |
| METALLOIDS (A box has 4 sides…….  Metalloids are elements that has at least 1 side of its box, made of the staircase) - ALUMINUM is an exception | [Go to fullsize image](http://rds.yahoo.com/_ylt=A0WTbx69fiJNOyAALWGJzbkF;_ylu=X3oDMTBqMjZqMWxsBHBvcwMyMwRzZWMDc3IEdnRpZAM-/SIG=1i6p6sb9q/EXP=1294192701/**http%3a/images.search.yahoo.com/images/view%3fback=http%253A%252F%252Fimages.search.yahoo.com%252Fsearch%252Fimages%253Fp%253Dmetalloids%2526b%253D21%2526ni%253D20%2526ei%253Dutf-8%2526xargs%253D0%2526pstart%253D1%26w=630%26h=430%26imgurl=www.kinderscience.com%252FCh9.JPG%26rurl=http%253A%252F%252Fwww.kinderscience.com%252Fperiodic_table_of_elements.htm%26size=27KB%26name=Metalloids%2bhave%2b...%26p=metalloids%26oid=7429eda2ac11ca66cffe67fca11ad6bd%26fr2=%26no=23%26tt=787%26b=21%26ni=20%26sigr=11rbiu89k%26sigi=10tsvb8hk%26sigb=12ui3qhln%26.crumb=XdN.C3D98qS) |
| S, p, d, f  The f area = INNER transitional metals  The d area = transitional metals  So if it involves a (d orbital), it would have to be a transitional metal  Always start with row number, then section letter, then box position  Big # = row number  Little number = box position |  |